

UNCLASSIFIED

AD NUMBER

AD091020

LIMITATION CHANGES

TO:

Approved for public release; distribution is unlimited.

FROM:

Distribution authorized to U.S. Gov't. agencies and their contractors;
Administrative/Operational Use; 25 OCT 1955.
Other requests shall be referred to Rome Air Development Center, Griffiss AFB, NY 13441-5700.

AUTHORITY

RADC ltr, 6 Oct 1969

THIS PAGE IS UNCLASSIFIED

UNCLASSIFIED

AD 91020

Armed Services Technical Information Agency

Reproduced by

DOCUMENT SERVICE CENTER

KNOTT BUILDING, DAYTON, 2, OHIO

This document is the property of the United States Government. It is furnished for the duration of the contract and shall be returned when no longer required, or upon recall by ASTIA to the following address: Armed Services Technical Information Agency, Document Service Center, Knott Building, Dayton 2, Ohio.

NOTICE: WHEN GOVERNMENT OR OTHER DRAWINGS, SPECIFICATIONS OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A DEFINITELY RELATED GOVERNMENT PROCUREMENT OPERATION, THE U. S. GOVERNMENT THEREBY INCURS NO RESPONSIBILITY, NOR ANY OBLIGATION WHATSOEVER; AND THE FACT THAT THE GOVERNMENT MAY HAVE FORMULATED, FURNISHED, OR IN ANY WAY SUPPLIED THE SAID DRAWINGS, SPECIFICATIONS, OR OTHER DATA IS NOT TO BE REGARDED BY IMPLICATION OR OTHERWISE AS IN ANY MANNER LICENSING THE HOLDER OR ANY OTHER PERSON OR CORPORATION, OR CONVEYING ANY RIGHTS OR PERMISSION TO MANUFACTURE, USE OR SELL ANY PATENTED INVENTION THAT MAY IN ANY WAY BE RELATED THERETO.

UNCLASSIFIED

91020

Cy #5

DAYSTROM INSTRUMENT
DIVISION OF DAYSTROM, INCORPORATED
Archbald, Pennsylvania

File No. RD377-3

FC

INTERIM ENGINEERING REPORT

ON

R. F. SWITCH FOR A WULLENWEBER ANTENNA

Period Covered by this Report:

September 19, 1955 to October 19, 1955

Date of Report:

October 25, 1955

Contract No.: AF 30(602)-1395

Project No.: 4700

Task No.: 49750

UNCLASSIFIED

PART I

SECTION A - PURPOSE1. General Description

- a. The fabrication of an R. F. Switch for a Wullenweber antenna.
- b. The instrument will consist of an external power source to drive the R. F. Switch section and the capacitance matching transformer section both of which are enclosed in an aluminum casting housing.

2. Breakdown of Problem

- a. The design and fabrication of the switch was broken down into the following working components.
 - (1) Motor and Magnetic Brake
 - (2) Controls
 - (3) R. F. Switch Section
 - (4) Impedance matching of cables and resistance calibration calculation
 - (5) Balancing
 - (6) Potting
 - (7) Conclusions

SECTION B - DETAIL FACTUAL DATA1. Work Performed During Period Reported

- a. The first unit has been completely assembled and tested to check continuity
- b. The motor and brake controls were thoroughly tested and necessary adjustments were made to insure reliable starting and quiet running.
- c. The unit was run continuously for a 9-hour period and found satisfactory.
- d. The unit was packed and shipped to RADC on October 19, 1955.

SECTION C - CONCLUSIONSDifficulties Encountered

Late delivery of the motor necessitated some last-minute adjustments.

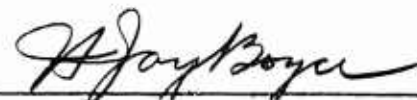
Considerable time was spent in trying to make the contact springs (Dwg. No. V551354317) maintain good contact after assembly. A minor change in the shape of the contact springs improved the contact reliability.

PART II

SECTION A - PROGRAM FOR NEXT INTERVAL

1. During the period to November 19, 1955, all parts will be manufactured for Units 2 and 3.
2. All cables will be cut and assembled for Units 2 and 3.
3. Plastic cylinders will be completely machined and ready for filling and plating.
4. Transformer section will be assembled, potted, and tested for Unit 2.
5. Assembly will be approximately 80% completed on Unit 2.
6. Test of Unit 2 should start approximately November 28, 1955.
7. Unit 2 should be ready for shipment on December 3, 1955.

Signed by:



H. JAY BOYCE
Project Engineer

Approved by:


ALEXANDER GREENFIELD

Director, Research and Development